

REMARKS

A.) The Section 103 Rejections

(i) Claims 19-22

Claims 19-22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sridhar, U.S. Patent No. 5,778,118 (“Sridhar”) in view of Park et al., U.S. Patent Publication No. 2002-0067526 (“Park”). Applicants disagree and traverse these rejections for at least the following reasons.

The Examiner has not articulated “rational underpinnings” to support a motivation to combine Sridhar and Park

Each of the claims of the present invention also include the features of: (a) selectively blocking one or more optical channels so that only optical channels not being dropped at an add/drop node are passed on a through transmission path; and (b) selectively blocking optical channels that have been previously added at the add/drop node and passed along in the through transmission path to avoid wavelength collisions. In sum, the claims include selective blocking of optical channels in both through and add transmission paths.

Neither Sridhar nor Park, taken individually, discloses or suggests blocking in both the through and add transmission paths. Sridhar, at best, discloses the blocking of optical channels in a through transmission path while Park at best discloses blocking in an add transmission path. Realizing that neither reference discloses both blocking functions the Examiner relies on their combination to reject claims 19-22. Applicants respectfully submit that this combination is improper because the Examiner has not articulated any rational underpinnings to support a motivation to combine Sridhar and Park. In contrast, the disclosure of Sridhar teaches away from such a combination.

More specifically, the Examiner’s stated rationale for combining the two references is that “[o]ne of ordinary skill in the art would have been motivated to combine the teaching of Park et al. with the add/drop node of Sridhar because the add filter eliminates optical noise and avoids wavelength collision”

(see page 3, lines 9-12). This is not amount to a sufficient rational underpinning to support obviousness. Rather, it appears that the Examiner has simply stated the generic functions of an add filter.

This statement does not overcome Sridhar's explicit teaching away from the selective blocking of optical channels that have been previously added at an add/drop node and passed along in a through transmission path to avoid wavelength collisions.

For example, in column 7, lines 7-18 Sridhar states: "Although the added optical channels are depicted as corresponding to the wavelengths blocked...this is not a requirement...." and "the optical signals which are added *do not contact* the optical filtering elements..." and yet further "...an arbitrary number of optical channels may be added...; the wavelengths ...do not need to correspond to the wavelengths of the channels blocked...". In sum, rather than suggest a relationship between the channels that are added in an add path and those that are passed along in a through path Sridhar goes out of its way to state that there is no relationship (see also, column 6, lines 38-43).

In the Office Action the Examiner states that the quoted language above does "not change the principle of operation". While the Applicants reserve judgment as to whether the combination of Park and Sridhar requires one or both of them to change their principle of operation, it is evident that the quoted language does set forth sufficient language which would discourage one skilled in the art, not encourage, from combining Sridhar and Park.

Accordingly, Applicants respectfully request withdrawal of the rejections and allowance of claims 19-22.

(ii) **Claims 1, 2, 9 and 12**

Claims 1, 2, 9 and 12 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sridhar in view of Park and newly cited Danagher et al U.S. Patent No. 5,959,749 ("Danagher"). Applicants disagree and traverse these rejections for at least the following reasons.

The references do not disclose or suggest per-channel, dynamic equalization.

Claims 1, 2, 9 and 12 include the feature of, among other things, dynamically equalizing the gain of optical channels in through and add transmission paths *on a per-channel basis*. None of the references disclose or suggest such equalization.

In the Office Action the Examiner acknowledges that neither Sridhar nor Park discloses equalization in the add and through transmission paths. To make up for this deficiency the Examiner relies on Danagher.

Though Danagher appears to disclose equalization, it is not per channel equalization. Instead, Danagher discloses equalization of multiple channels within WDM signal "C" (see column 7, lines 5-10) to provide equalization of an "optical power spectrum".

In sum, because Sridhar, Park and Danagher, separately or in combination, do not disclose or suggest per channel dynamic equalization the Applicants respectfully request withdrawal of the rejections and allowance of claims 1, 2, 9 and 12.

(iii.) claims 4-8, 10 and 11

Claims 4-8, 10 and 11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sridhar, Park, Danagher in further view of Thomas et al., U.S. Patent No. 6,429,974 ("Thomas"). Applicants disagree and traverse these rejections for at least the following reasons.

Applicants respectively submit that these claims depend on independent claim 1 and, therefore, are patentable over the combination of Sridhar, Park, Danagher in further view of Thomas for the reasons stated above with respect to claim 1 and because Thomas does not make up for the deficiencies of Sridhar, Park or Danagher.

For at least these reasons, Applicants respectfully request withdrawal of the pending rejections and allowance of claims 4-8, 10 and 11.

(iv) claims 13 and 14

Claims 13 and 14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sridhar, Park, Danagher in further view of Bouevitch et al., U.S. Patent No. 6,498,872 (“Bouevitch”). Applicants disagree and traverse these rejections for at least the following reasons.

Claims 13 and 14 include the feature of, among other things, dynamically equalizing the gain of optical channels in through and add transmission paths *on a per-channel basis*. None of the references disclose or suggest such equalization.

Though Danagher and Bouevitch appear to disclose equalization, it is not per channel equalization.

In sum, because Sridhar, Park, Danagher and Bouevitch, separately or in combination, do not disclose or suggest per channel dynamic equalization the Applicants respectfully request withdrawal of the rejections and allowance of claims 13 and 14.

(v.) claims 16-18

Claims 16-18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sridhar, Park, Danagher, Bouevitch and Thomas. Applicants disagree and traverse these rejections for at least the following reasons.

Applicants respectively submit that these claims depend on independent claim 13 and, therefore, are patentable over the combination of Sridhar, Park, Danagher, Bouevitch in further view of Thomas for the reasons stated above with respect to claim 13 and because Thomas does not make up for the deficiencies of Sridhar, Park, Danagher, Bouevitch or Thomas.

For at least these reasons, Applicants respectfully request withdrawal of the pending rejections and allowance of claims 16-18.

CONCLUSION

For the reasons stated above, Applicants respectfully request withdrawal of the rejections and allowance of claims 1, 2, 4-14 and 16-22.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John E. Curtin at the telephone number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 50-3777 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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